

# Attachment 2 - Arroyo Grande Creek Lagoon Emergency CDP Justification



## SAN LUIS OBISPO COUNTY DEPARTMENT OF PUBLIC WORKS

Wade Horton, Director


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**To:** Jim Bergman, Director, Planning

**From:** Wade Horton, Director, Public Works 

**Date:** January 28, 2016

**Subject:** Arroyo Grande Creek Emergency Coastal Development Permit

The Department of Public Works (County) is requesting an Emergency Coastal Development Permit for an emergency flood control activity adjacent to and within the Arroyo Grande Lagoon, within the Oceano Dunes State Vehicular Recreation Area (SRVA). The activity is proposed to minimize public safety risks, significant losses of property, and economic hardship that could result from a series of storms forecast to affect the area in the next week. The activity reflects the recommendations found in the *Arroyo Grande Lagoon Interim Sandbar Management Plan* (Management Plan) prepared for the County by ESA/PWA, dated October 9, 2013, although the County intends to actively breach the lagoon rather than “pre-breaching” it. The Management Plan suggests that sandbar management should be considered when:

1. water levels exceed 7.5 feet in the lagoons – flood elevation is approximately 10 feet;
2. the sandbar beach berm exceeds 9 feet; and/or
3. when a significant precipitation event is forecast.

All three of these conditions currently exist.

### **Nature of Emergency:**

The Arroyo Grande - Meadow Creek lagoon complex is currently at a level of 9.1 feet (+6.4 MSL). The lowest floor elevation in the "Island" neighborhood is 10.37, just 1.3 feet above the current lagoon level. Standing water is present in Security Court, at the north end of the airport runway, and has filled the drainage canal along Aloha Place fronting the South San Luis Obispo County Wastewater Treatment Plant. The County's goal is to reduce the water level in the Meadow Creek and Arroyo Grande Lagoons to approximately 8.5 feet (NAVD88); +5.8 feet above mean sea level. The Meadow Creek Lagoon drains into the Arroyo Grande Creek Lagoon through flapgates; therefore it is necessary for the County to first reduce water levels in the Arroyo Grande Lagoon by approximately 0.6 foot.

This morning's forecast by John Lindsey states: “ A vigorous cold front will move through the Central Coast on Sunday morning with moderate to fresh (13 to 24 mph) southeasterly winds and moderate to heavy rain as the jet stream moves southward over San Luis Obispo and Santa Barbara counties.”

We expect forecasted rainfall in the upper Arroyo Grande / Los Berros Creek watersheds to produce flows in Arroyo Grande Creek sufficient to breach the sandbar and allow storm flows to flow into the ocean; however, the current available storage volume in Meadow Creek Lagoon (above the flap gates) may be insufficient to contain locally generated storm flows below adjacent residences and the wastewater plant until peak flows in Arroyo Grande Creek pass and allow



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Meadow Creek to flow through the flap gates and into the ocean. This situation is similar to conditions present in December of 2011 which resulted in flooding of the wastewater treatment plant and 45 adjacent residences.

### **Cause of the Emergency:**

Despite the fact that Arroyo Grande Creek breached the sandbar under natural conditions overnight on January 19-20, currently the sandbar is between 8.5 and 9.5 feet, and high enough that it will likely prevent the creek from breaching again until after storm water runoff has resulted in flooding of areas.

### **Location:**

Arroyo Grande Lagoon, within the Oceano Dunes State Vehicular Recreation Area (SRVA). The project is not within the Coastal Commission's Original Jurisdiction. Please see the attached map.

### **Remedial, protective or preventative work required to deal with the emergency:**

In order to accomplish the water level reduction, the County will breach the sandbar between the Arroyo Grande Creek Lagoon and the ocean (a map and photos of the area are attached). The activity will consist of the following:

1. Mobilizing an excavator/front-end loader and dump trucks onto the beach from the existing Pier Avenue beach access point.
2. Excavating an approximately 25-foot-wide by 400-foot-long channel with banks that are sloped at approximately 1:1, between the lagoon and the mean high tide line. The trench would reach a maximum depth of approximately 4 feet deep, but in general be shallower. It is estimated that approximately 1,000 cubic yards of material will be excavated. To ensure the breach occurs, it would be necessary to excavate sediments from the margins of the lagoon. No work will be conducted below the mean high tide line.
3. Constructing the trench such that it allows for continued vehicular access to the maximum extent feasible.
4. Depositing excavated material to the south (the direction of natural longshore drift) of the southern end of the lagoon and above the mean high tide line in an area to be coordinated with State Parks.

To avoid and minimize impacts during construction, the County intends to implement the following measures:

1. Conduct pre-construction biological reconnaissance surveys for special-status wildlife and plant species which may exist on the dune sand in either the excavation or deposition areas
2. Conduct biological monitoring of the activity during excavation to monitor the lagoon, to minimize impacts to wildlife/botanical species during the work.
3. Prepare a report and photo documentation of the work, to be submitted to all applicable agencies.

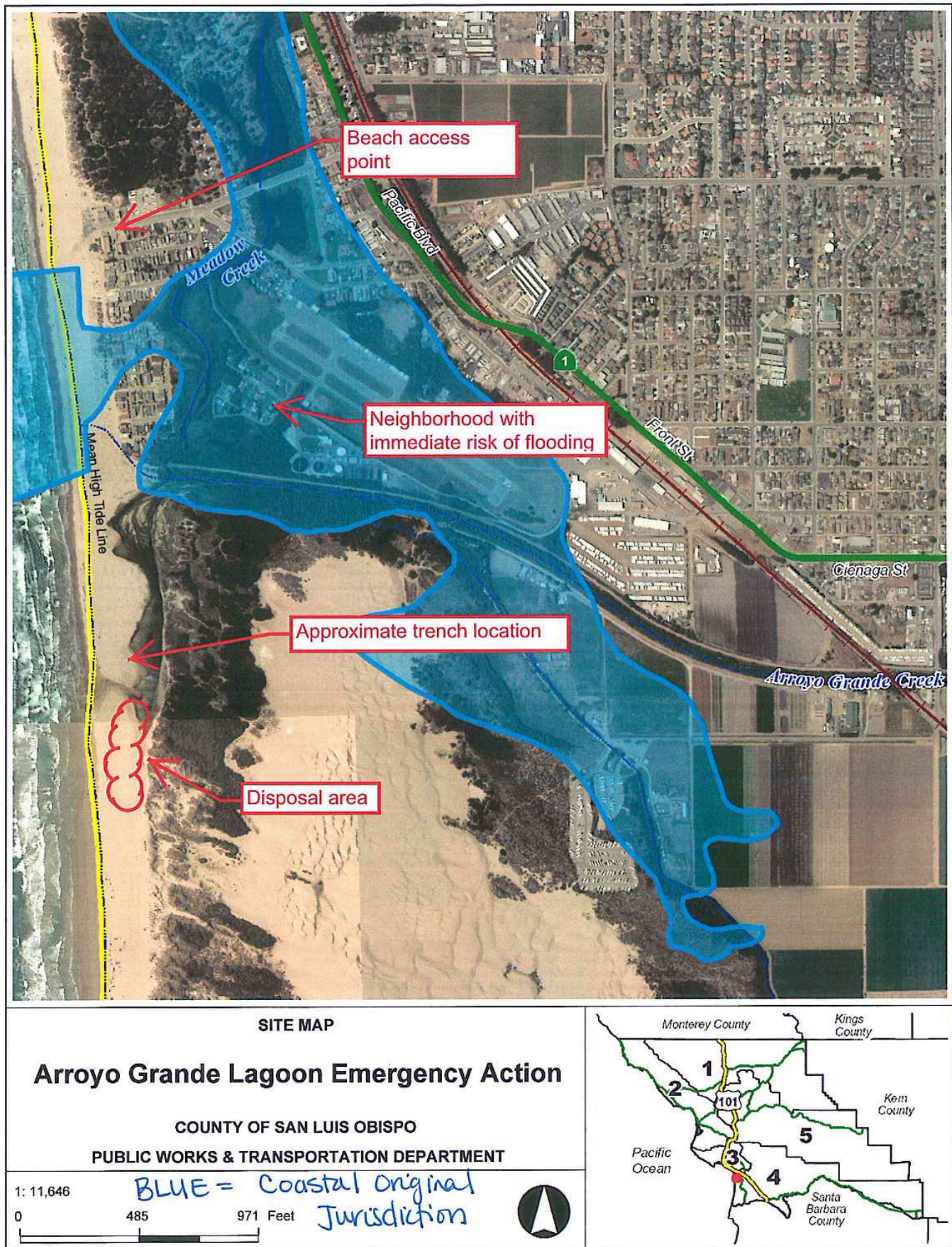
### **If work has already begun, the circumstances during the emergency that justified the course of action taken and the probable consequences of failing to take action:**

No work has begun, although it could begin as early as Friday, January 29, 2016.

If you have any questions regarding this notification, please contact Kate Ballantyne at (805) 788-2765 or [kballantyne@co.slo.ca.us](mailto:kballantyne@co.slo.ca.us).

Enclosures: Arroyo Grande Lagoon Emergency Action Site Map  
Photo-documentation  
Arroyo Grande Lagoon Emergency Action Memo







**Arroyo Grande Creek Lagoon Emergency Action Photo-documentation**



Photo 1. View looking west where natural breach occurred on January 19-20 and where proposed breach would occur.



Photo 2. View of the southernmost lagoon area. This area drained during the natural breach on January 19-20.



## Attachment 2 - Arroyo Grande Creek Lagoon Emergency CDP Justification



Photo 3. Looking north at the Arroyo Grande Creek Lagoon. The breach would occur photo left.



Photo 4. View to the west showing the flapgates separating Meadow Creek and Arroyo Grande Creek Lagoons.



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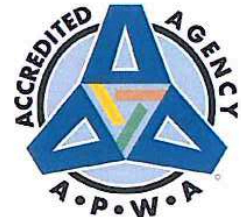
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**To:** Applicable Agency Representatives

**From:** Wade Horton, Director 

**Date:** January 28, 2016

**Subject:** Arroyo Grande Creek Emergency Action

The County of San Luis Obispo Department of Public Works (County) is notifying you that an emergency flood control activity will be conducted adjacent to and within the Arroyo Grande Lagoon, within the Oceano Dunes State Vehicular Recreation Area (SRVA). The activity is proposed to minimize public safety risks, significant losses of property, and economic hardship that could result from a series of storms forecast to affect the area in the next week. The activity reflects the recommendations found in the *Arroyo Grande Lagoon Interim Sandbar Management Plan* (Management Plan) prepared for the County by ESA/PWA, dated October 9, 2013, although the County intends to actively breach the lagoon rather than “pre-breaching” it. The Management Plan suggests that sandbar management should be considered when:

1. water levels exceed 7.5 feet in the lagoons – flood elevation is approximately 10 feet;
2. the sandbar beach berm exceeds 9 feet; and/or
3. when a significant precipitation event is forecast.

The water levels of the Arroyo Grande and Meadow Creek Lagoons are currently 9.1 feet (+6.4 MSL). Despite the fact that Arroyo Grande Creek breached the sandbar under natural conditions overnight on January 19-20, currently the sandbar is between 8.5 and 9.5 feet, and high enough that it will likely prevent the creek from breaching again until after storm water runoff has resulted in flooding of areas. The County’s goal is to reduce the water level in the Meadow Creek and Arroyo Grande Lagoons to approximately 8.5 feet. The Meadow Creek Lagoon drains into the Arroyo Grande Creek Lagoon through flapgates; therefore it is necessary for the County to first reduce water levels in the Arroyo Grande Lagoon by approximately 0.6 foot. A neighborhood of 45 residences, and the South County Sanitation District are within the area that may flood without intervention. A vigorous storm is forecasted for Sunday, January 31<sup>st</sup>.

In order to accomplish this, the County will breach the sandbar between the Arroyo Grande Creek Lagoon and the ocean (a map and photos of the area are attached). The activity will consist of the following:

1. Mobilizing an excavator/front-end loader and dump trucks onto the beach from the existing Pier Avenue beach access point.
2. Excavating an approximately 25-foot-wide by 400-foot-long channel with banks that are sloped at approximately 1:1, between the lagoon and the mean high tide line. The trench would reach a maximum depth of approximately 4 feet deep, but in general would be shallower. It is estimated that approximately 1,000 cubic yards of material will be excavated. To ensure the breach occurs, it would be necessary to excavate sediments from the margins of the lagoon. No work will be conducted below the mean high tide line.

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3. Constructing the trench such that it allows for continued vehicular access to the maximum extent feasible.
4. Depositing excavated material to the south (the direction of natural longshore drift) of the southern end of the lagoon and above the mean high tide line in an area to be coordinated with State Parks.

To avoid and minimize impacts during construction, the County intends to implement the following measures:

1. Conduct pre-construction biological reconnaissance surveys for special-status wildlife and plant species which may exist on the dune sand in either the excavation or deposition areas;
2. Conduct biological monitoring of the activity during excavation to monitor the lagoon, and ensure the project does not directly or indirectly impact the lagoon; and

In order to conduct this activity, Public Works has coordinated access requirements with State Parks and requested an emergency Coastal Development Permit from the County of San Luis Obispo Planning and Building Department. The project is located outside of Coastal's Original Jurisdiction and the mean high tide line. No fill will be placed in Section 404 waters and no dredging will occur in Section 10 waters. We stress that this is an interim and emergency approach to address the immediate potential for local flooding. An emergency notification will be submitted to the California Department of Fish and Wildlife.

If your agency recommends any additional resource protection measures be implemented, or has any questions regarding this notification, please contact Kate Ballantyne at (805) 788-2765, Keith Miller at (805) 781-5714, or Andrew Anderson at (805) 781-1952; all of these staff are familiar with the project.

Enclosures: Arroyo Grande Lagoon Emergency Action Site Map  
Photo-documentation

Copy: Jim Bergman, County of San Luis Obispo Department of Planning and Building  
Brent Marshall, California Department of Parks and Recreation  
Charles Walbridge, California Department of Fish and Wildlife  
Phillip Hammer, Central Coast Regional Water Quality Control Board  
Kevin Kahn, California Coastal Commission  
Roger Root, United States Fish and Wildlife Service  
Mathew McGoogan, National Marine Fisheries Service  
Erin Hanlon, United States Army Corps of Engineers